



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/520,796	08/23/2005	Thomas Braig	CH8305/LeA 36,174	9928
7590 Lanxess Corporation Law & Intellectual Property Department 100 Bayer Road Pittsburgh, PA 15205-9745	01/24/2008		EXAMINER LEE, DORIS L	
			ART UNIT 4145	PAPER NUMBER
			MAIL DATE 01/24/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/520,796	BRAIG ET AL.	
	Examiner	Art Unit	
	Doris L. Lee	4145	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on ____.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-13 is/are pending in the application.
 - 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) Claim(s) ____ is/are allowed.
- 6) Claim(s) 1-13 is/are rejected.
- 7) Claim(s) ____ is/are objected to.
- 8) Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on ____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. ____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. ____ .
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)	5) <input type="checkbox"/> Notice of Informal Patent Application
Paper No(s)/Mail Date <u>20060731</u>	6) <input type="checkbox"/> Other: ____ .

DETAILED ACTION

Information Disclosure Statement

1. Foreign patent documents JP14742/72 and UK 1,267,790 listed the Information Disclosure Statement submitted on July 31, 2006 have not been considered because a copy of the foreign patent document has not been supplied by the applicant with the application. See 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed.

Claim Objections

2. **Claim 4** is objected to because the phrase “selected from” is used when only one choice is presented. It is suggested that the applicant delete the phrase. Appropriate correction is required.

3. **Claim 8** is objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend from any other multiple dependent claim. See MPEP § 608.01(n). For the purpose of this Office Action said claim has been treated as if dependent from claim 1. Appropriate correction is required.

4. **Claim 8** recites the limitation “n” and “R” and “Ar” in the formula as written but the claim does not define said terms. Appropriate correction is required.

5. **Claim 9** is objected to because in the structural element, the limitation “n = 2 to” does not have an end point. It is suggested that the claim be amended to say “n = 2 to 10”. Appropriate correction is required.

6. **Claim 10** objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. It does not include all the limitations of the base claim and therefore can be infringed without infringing the base claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Appropriate correction is required.
7. **Claim 13** is objected to because there is insufficient antecedent basis for the claim. There is no process claimed in claim 1. Appropriate correction is required.

Claim Rejections - 35 USC § 101

8. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

9. **Claim 12** is rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd. v. Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

Claim Rejections - 35 USC § 112

10. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

11. **Claims 6, 7 and 12** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

12. **Regarding claim 6**, a broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 6 recites the broad recitation "any integer >2", and the claim also recites "preferably 2 to 10" which is the narrower statement of the range/limitation.

13. **Regarding claim 7**, A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the

decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 7 recites the broad recitation “CH₂-C₅H₁₁”, and the claim also recites “or most preferably CH₃, or extremely preferably C₂H₅” which is the narrower statement of the range/limitation.

14. **Regarding claim 12**, it provides for the use of the composition according to instant claims 1 or 2, but since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

Claim Rejections - 35 USC § 102

15. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

16. **Claims 1 and 6-13** are rejected under 35 U.S.C. 102(b) as being anticipated by

Magerstedt et al (US 5,726,227).

Regarding claim 1, Magerstedt teaches a composition containing

- 0.01 to 5 wt.% (in relation to the total composition) polymeric phosphites (C4/L64-C5/L15), which contain, per molecule, at least one oxetane group (C1/L42-44, C1/L52-55) and of which 50% or more of all molecules contain at least four monomers from the group of a di- or polyvalent phenol and/or phosphite (C4/L64-C5/L9)

- 20 to 99.99 wt.% thermoplastics, selected from the group of polycarbonates, polyalkylene terephthalates, ABS, styrene polymers, polyurethanes, polyamides, polyolefins (C1/L38-41 and C1/L49-51)

Regarding claim 6, modified Magerstedt discloses all the limitations as set forth above. In addition, Magerstedt teaches a composition containing a phosphite of the formula in which n means 2 or any integer >2, preferably 2 to 10, R means alkyl, aralkyl, cycloalkyl, aryl or phenyl or hetaryl, at least one of the R groups carrying an oxetane group, and Ar represents aryl, which may optionally be substituted by alkyl and/or hydroxy, Ar being the same or different, (C4/L64-C5-L15).

Regarding claim 7, modified Magerstedt discloses all the limitations as set forth above. In addition, Magerstedt teaches a composition containing a phosphite wherein the oxetane group is a heterocyclic group wherein Z is equal to -CH₂-O-C₆H₁₃ or CH₂-O-C₂H or preferably H, n-C₅H₁₁, -CH₂-C₅H, or most preferably CH₃, or extremely preferably C₂H₅ (C5/LL30-42).

Regarding claim 8, modified Magerstedt teaches all the limitations as set forth above. In addition, Magerstedt teaches a composition containing a phosphite of the formula as claimed in claim 8 of the instant application (C4/L64-C5-L15).

Regarding claim 9, modified Magerstedt teaches all the limitations as set forth above. In addition, Magerstedt teaches a composition containing a phosphite of the formula as claimed in claim 9 of the instant application (C9-10/the structure at the top of the page).

Regarding claim 10 and 11, Magerstedt discloses all the limitations as set forth above. In addition, Magerstedt teaches that the filling and reinforcing material is 0% (C1/L45-46 – “optionally”) and that the filling and reinforcing material is glass fibers (C11/L62-C12-L5).

Regarding claim 12, Magerstedt discloses all the limitations as set forth above. In addition, Magerstedt teaches molded bodies made from the composition (C13/L58-67).

Regarding claim 13, Magerstedt discloses all the limitations as set forth above. In addition, Magerstedt teaches molded bodies made from the composition (C13/L58-67).

Claim Rejections - 35 USC § 103

17. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

18. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

19. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

20. **Claim 2** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Magerstedt et al (US 5,726,227)**.

Regarding claim 2, Magerstedt teaches a composition containing

- 0.03 wt% to 0.1 wt% (C1/L52-55 - 0.05% to 0.4% parts by weight) polymeric phosphites (C4/L64-C5/L15), which contain, per molecule, at least one oxetane group (C1/L42-44, C1/L52-55) and of which 50% or more of all molecules contain at least four monomers from the group of a di- or polyvalent phenol and/or phosphite (C4/L64-C5/L9)
- 30 wt% to 41.87 wt% (C1/L49-51 - 20-99.99 wt %) of thermoplastics, selected from the group of polycarbonates, polyalkylene terephthalates, ABS, styrene polymers, polyurethanes, polyamides, polyolefins (C1/L38-41 and C1/L49-51)
- 9-31 wt. % (C1/L55-57, up to 45 parts by weight) at least one filling and reinforcing material (C1/L46)
- at least one flame-retarding additive (C1/L47)
- further thermoplastic different from component B (C1/L38-41)
- 9 to 15 wt% (C1/L67 – up to 30 parts by weight) at least one elastomer modifier (C1/L48)
- other conventional additives (C1/L61-65)

Magerstedt does not explicitly disclose the amounts of exact amounts of flame-retarding additive, the further thermoplastic material or the conventional additives.

Since the instant specification is silent to unexpected results, the specific amount of the components of the composition is not considered to confer patentability to the claims. As the degree of stabilization to thermal loading, the amount of flame retardancy needed, and the

processability of the composition, are variables that can be modified, among others, by adjusting said relative amounts of the components, the precise amounts of these components would have been considered a result effective variable by one having ordinary skill in the art at the time the invention was made. As such, without showing unexpected results, the claimed amounts of each of the components within the composition cannot be considered critical. Accordingly, one of ordinary skill in the art at the time the invention was made would have optimized, by routine experimentation, the amounts of each of the components to obtain the desired balance between the degree of stabilization to thermal loading, the amount of flame retardancy needed or the processability of the composition (In re Boesch, 617 F.2n. 272, 205 USPQ 215 (CCPA 1980)), since it has been held that where the general conditions of the claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art (In re Aller, 105 USPQ 223).

21. **Claims 3-5** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Magerstedt et al (US 5,726,227)**, as applied to claims 1 and 2 above, in view of **Idel et al (US 5,231,124)**.

Regarding claims 3-5, modified Magerstedt discloses all the limitations as set forth above. Magerstedt does not teach that the thermoplastic material used in the composition can be a polycarbonate or a polyalkylene terephthalate.

Idel teaches a composition in which the thermoplastic selected from the group of polyalkylene terephthalate (C1/L48-50) and polycarbonates (C1/L51-52).

It would be obvious to one of ordinary skill in the art at the time the invention was made to combine the thermoplastic selected from the group of polycarbonates and polyalkylene terephthalates of Idel with the composition of Magerstedt. Magerstedt and Idel are combinable

because they are concerned with the same field of endeavor, namely stabilized molding compositions. One would be motivated to do so in order to receive the expected benefit of being able to use the composition in a wider variety of applications where the properties of polycarbonate (such as temperature resistance, impact resistance and optical properties) and/or polyalkylene terephthalates (such as impact resistance, processability) are superior to other thermoplastics. Absent any evidence to the contrary, and based upon the teachings of the prior art, there would have been a reasonable expectation of success.

Conclusion

22. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Doris L. Lee whose telephone number is (571)270-3872. The examiner can normally be reached on Mon - Thurs, 7:30am - 5pm EST and every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Basia Ridley can be reached on (571) 272-1453. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DLL 1/14/2008

/Basia Ridley/
Supervisory Patent Examiner, Art Unit 4145